Saudi Electricity Company الشركة السعودية للكهرباء

SEC DISTRIBUTION CONSTRUCTION STANDARDS

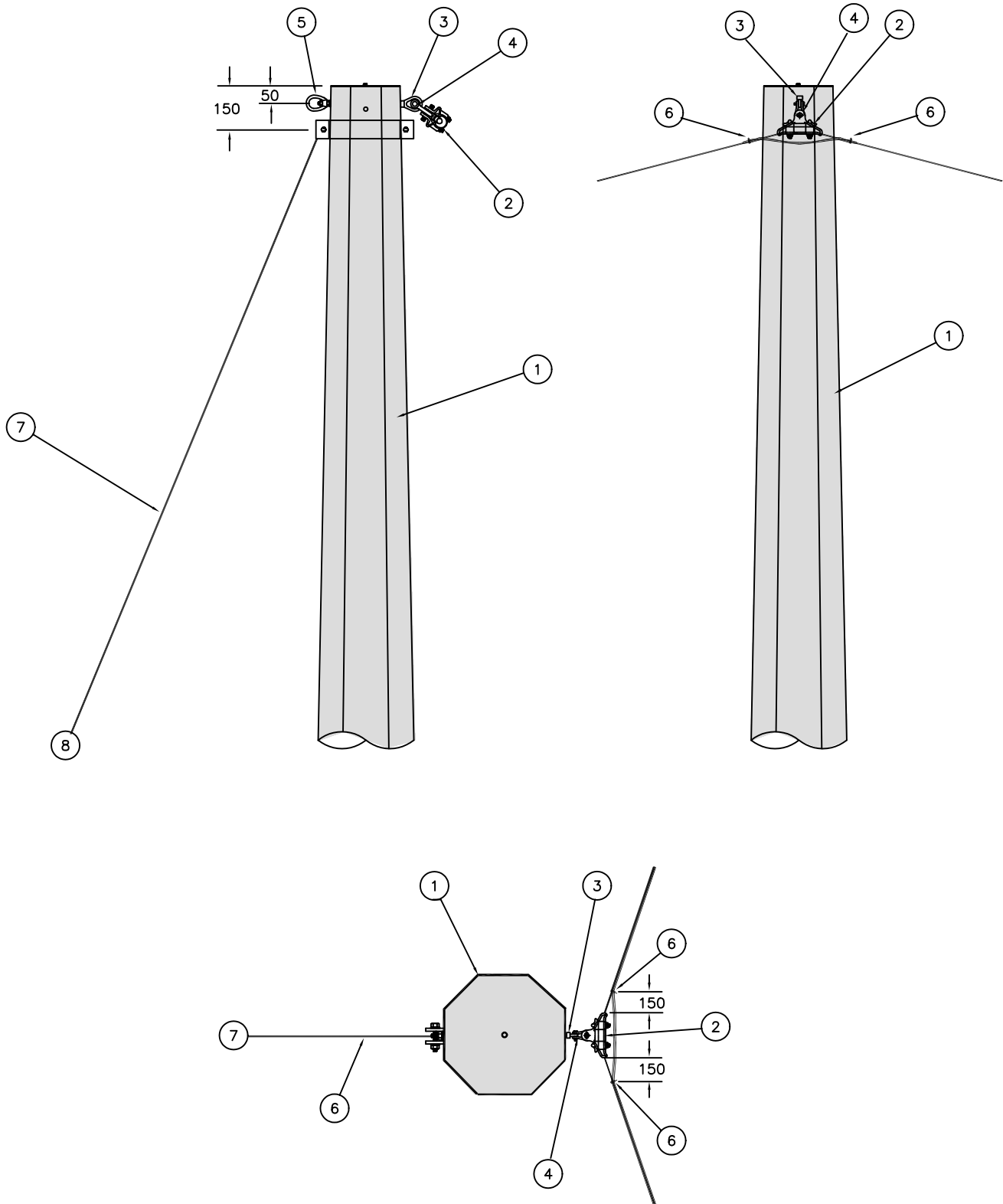
SDCS-01

Dated: 24-06-2003

DRW.130-OC10, 10M, LOW VOLTAGE, INTERMEDIATE STRUCTURE 0°-15°

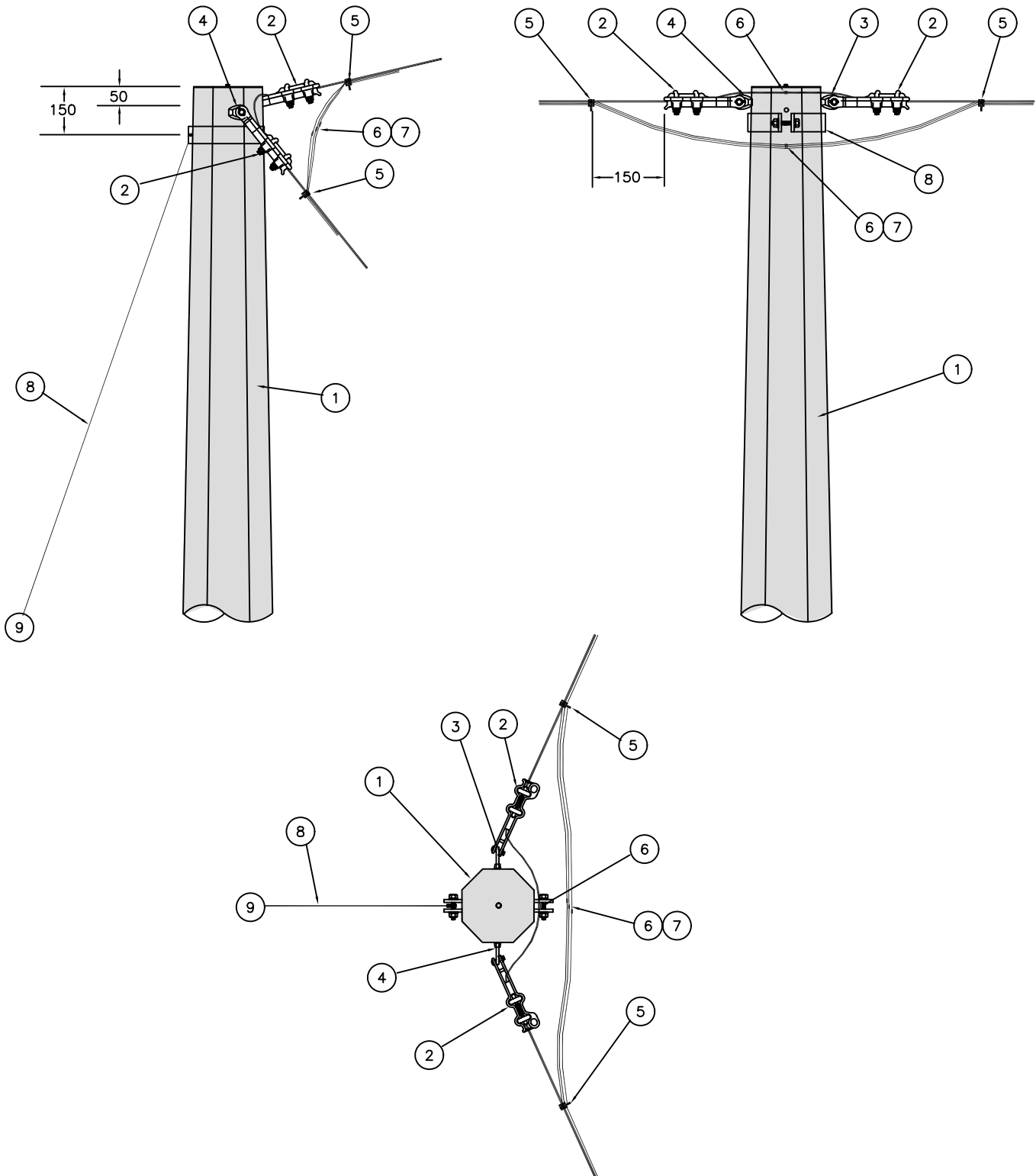
ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	1	Earthwire Support Plate	20-SDMS-02	Fig. 06
03	1	Machine Bolt, M16x145mm W/1 Nut, 2 Flat Washers & 1 Spring Washer	20-SDMS-02	Fig. 14
04	2	Cable Tie	20-SDMS-02	Fig. 63

DRW.130A-OC10, 10M, LOW VOLTAGE, INTERMEDIATE STRUCTURE 0°-15°

DRW.131-OC10, 10M, LOW VOLTAGE, MEDIUM ANGLE STRUCTURE 16°-60° WITH STAY

ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	1	Suspension Clamp For Quadruplex Messenger	20-SDMS-02	Fig. 31
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts, 1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
04	1	Anchor Shackle	20-SDMS-02	Fig. 20
05	1	Eye Nut M16	20-SDMS-02	Fig. 18
06	2	Cable Tie	20-SDMS-02	Fig. 63
07	12M	Stay Wire 7/3.25, 9.8mm Dia. HDG Steel, UTS 65kN (Min)		
08	1 Set	L.T. One Stay Assembly	20-SDMS-02	Drw. 300

DRW.131A-OC10, 10M, LOW VOLTAGE, MEDIUM ANGLE STRUCTURE 16°-60° WITH STAY

DRW.132-OC10, 10M, LOW VOLTAGE, HEAVY ANGLE STRUCTURE 61° – 90° WITH STAY

ALL DIMENSIONS ARE IN MILLIMETER

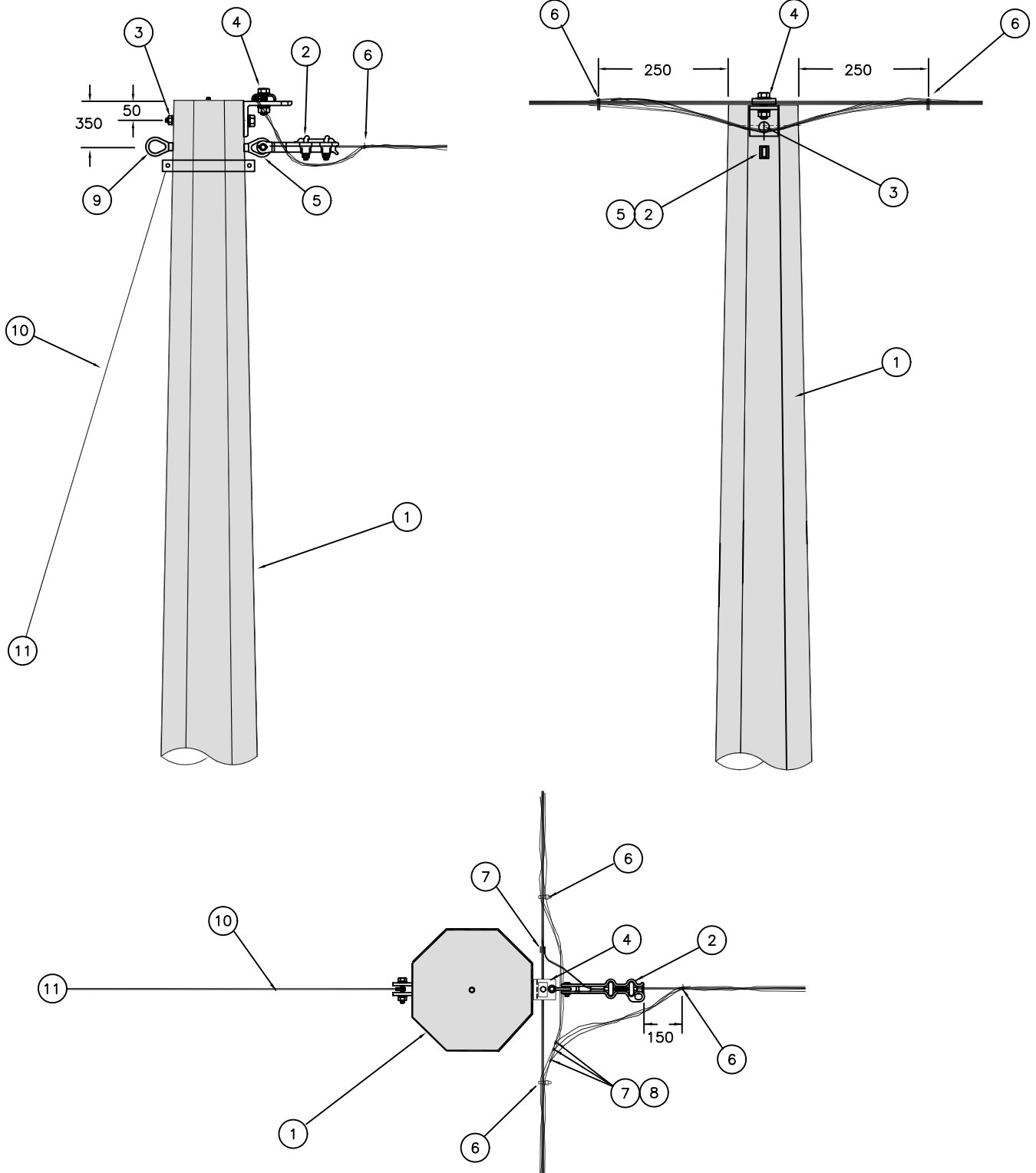
SERIAL NO.	QTY	BILLS OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	2	Strain Clamp, Straight Line Deadend Type for Quadruplex Messenger	20-SDMS-02	Fig. 30
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts,1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
04	1	Eye Nut M16	20-SDMS-02	Fig. 18
05	2	Cable Tie	20-SDMS-02	Fig. 63
06	4	Parallel Groove Comp. Connector for 120mm2 Quadruplex Messenger	20-SDMS-02	Fig. 39
07	3	Insulating Cap for Quadruplex Connector	20-SDMS-02	Fig. 40
08	12M	Stay Wire 7/3.25, 9.8mm Dia. HDG Steel, UTS 65kN (Min)		
09	1 Set	L.T. One Stay Assembly	20-SDMS-02	Drw. 301

DRW.132A-OC10, 10M, LOW VOLTAGE, HEAVY ANGLE STRUCTURE 61°-90° WITH STAY

DRW.133-OC10, 10M, LOW VOLTAGE, TERMINAL STRUCTURE WITH STAY

ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	1	Strain Clamp, Straight Line Deadend Type For Quadruplex Messenger	20-SDMS-02	Fig. 30
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts,1 Flat Washers & 1 Spring Washer	20-SDMS-02	Fig. 16
04	1	Eye Nut M16	20-SDMS-02	Fig. 18
05	1	Cable Ties	20-SDMS-02	Fig. 63
06	12M	Stay Wire 7/3.25, 9.8mm dia. HDG Steel, UTS 65kN (Min)		
07	1 Set	L.T. One Stay Assembly	20-SDMS-02	Drw. 300

DRW.133A-OC10, 10M, LOW VOLTAGE, TERMINAL STRUCTURE WITH STAY

DRW.134-OC10, 10M, LOW VOLTAGE, TAP-OFF ON INTERMEDIATE 0°-15° STRUCTURE WITH ONE STAY

ALL DIMENSIONS ARE IN MILLIMETER

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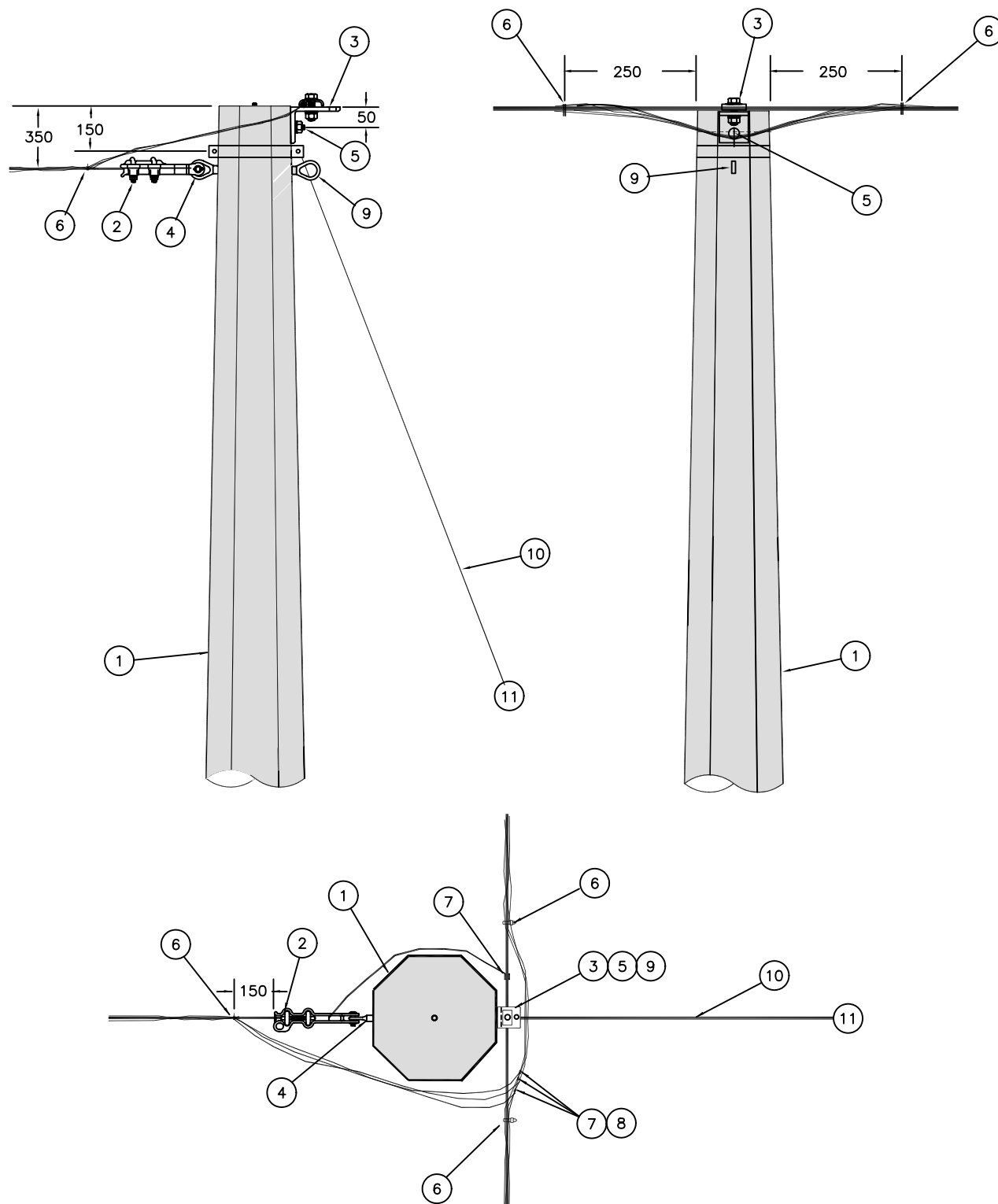
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	1	Strain Clamp, Straight Line Deadend Type for Quadruplex	20-SDMS-02	Fig. 30
03	1	Machine Bolt M16x145mm W/1Nut, 2Flat Washers & 1 Spring Washer	20-SDMS-02	Fig. 14
04	1	Earthwire Support Plate	20-SDMS-02	Fig. 06
05	1	Shoulder Eye Bolt, M16x180mmW/2 Nuts,1Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
06	3	Cable Ties	20-SDMS-02	Fig. 63
07	4	Parallel Groove Comp. Connector for 120mm2 Quadruplex Messenger	20-SDMS-02	Fig. 39
08	3	Insulating Cap for Quadruplex Connectors	20-SDMS-02	Fig. 40
09	1	Eye Nut M16	20-SDMS-02	Fig. 18
10	12M	Stay Wire 7/3.25, 9.8mm Dia. HDG Steel, UTS 65kN (Min)		
11	1 Set	L.T. One Stay Assembly	20-SDMS-02	Drw.301

DRW:134A-OC10, LOW VOLTAGE, TAP-OFF STRUCTURE ON INTERMEDIATE 0°-15° STRUCTURE WITH STAY

DRW.135-OC10, 10M, LOW VOLTAGE, TAP-OFF AT THE BACK OF INTERMEDIATE 0°-15° STRUCTURE

ALL DIMENSIONS ARE IN MILLIMETER

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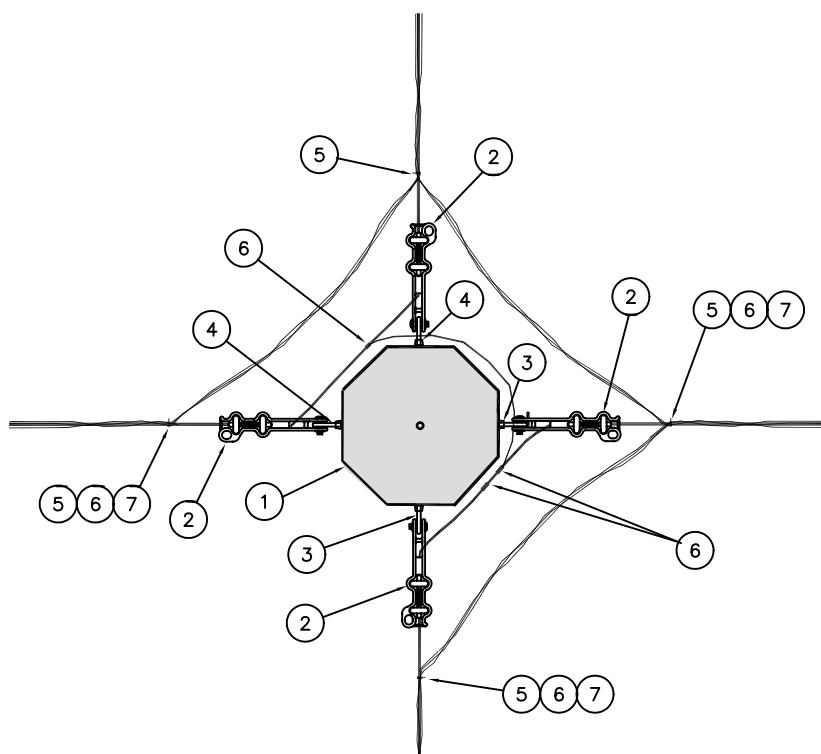
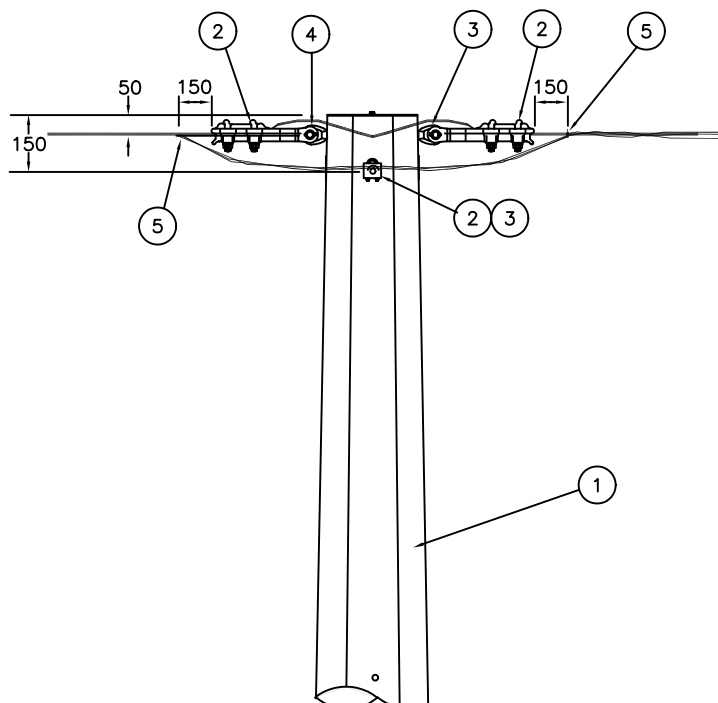
SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	1	Strain Clamp, Straight Line Deadend Type for Quadruplex	20-SDMS-02	Fig. 30
03	1	Earthwire Support Plate	20-SDMS-02	Fig. 06
04	1	Shoulder Eye Bolt, M16x180mm W/2Nuts, 1Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
05	1	Machine Bolt, M16x145mm W/1 Nut, 2 Flat Washers & 1 Spring Washer	20-SDMS-02	Fig. 14
06	3	Cable Ties	20-SDMS-02	Fig. 63
07	4	Parallel Groove Comp. Connector for 120mm2 Quad. Messenger	20-SDMS-02	Fig. 39
08	3	Insulating Cap for Quadruplex Connectors	20-SDMS-02	Fig. 40
09	1	Eye Nut, M16	20-SDMS-02	Fig. 18
10	12M	Stay Wire 7/3.25, 9.8mm Dia. HDG Steel, UTS 65kN (Min)		
11	1 Set	L. T. One Stay Assembly	20-SDMS-02	Drw. 300

DRW:135A-OC10, LOW VOLTAGE, TAP-OFF STRUCTURE AT THE BACK OF INTERMEDIATE 0°-15° STRUCTURE

DRW:136-OC10, 10M, LOW VOLTAGE, 4 WAYS
ON INTERMEDIATE 0°-15° STRUCTURE

ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	4	Strain Clamp, Straight Line Deadend Type for Quadruplex Messenger	20-SDMS-02	Fig. 30
03	2	Shoulder Eye Bolt M16x170mmW/2 Nuts,1 Flat Washer & 1 Srping Washer	20-SDMS-02	Fig. 16
04	2	Eye Nut M16	20-SDMS-02	Fig. 18
05	4	Cable Ties	20-SDMS-02	Fig. 63
06	12	Parallel Groove Comp. Connector for 120mm2 Quadruplex Messenger	20-SDMS-02	Fig. 39
07	9	Insulating Cap for Quadruplex Connectors	20-SDMS-02	Fig. 40

DRW:136A-OC10, LOW VOLTAGE, 4 WAYS ON
INTERMEDIATE 0°-15° STRUCTURE

DRW.137-OC10, 10M, LOW VOLTAGE, TAP-OFF ON MEDIUM ANGLE STRUCTURE 16°-60°

ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 − 10 Meter Steel Pole, HDG, Single Circuit	20−SDMS−01	Page 33
02	1	Suspension Clamp For Quadruplex Messenger	20−SDMS−02	Fig. 31
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts, 1 Flat Washer & 1 Spring Washer	20−SDMS−02	Fig. 16
04	1	Anchor Shackle	20−SDMS−02	Fig. 20
05	1	Eye Nut M16	20−SDMS−02	Fig. 18
06	1	Strain Clamp, straight Line Deadend Type for Quadruplex Messenger	20−SDMS−02	Fig. 30
07	3	Cable Ties	20−SDMS−02	Fig. 63
08	4	Paralle Groove Comp. Connector for 120mm2 Quadruplex Messenger	20−SDMS−02	Fig. 39
09	3	Insulating Cap for Quadruplex Connectors	20−SDMS−02	Fig. 40

DRW.137A−OC10, 10M, LOW VOLTAGE, TAP−OFF ON MEDIUM ANGLE STRUCTURE 16°−60°

DRW.138-OC10, 10M, LOW VOLTAGE, TAP-OFF ON THE SAME SIDE OF MEDIUM ANGLE STRUCTURE 16°-60°

ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	1	Suspension Clamp For Quadruplex Messenger	20-SDMS-02	Fig. 31
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts, 1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
04	1	Anchor Shackle	20-SDMS-02	Fig. 20
05	2	Eye Nut M16	20-SDMS-02	Fig. 18
06	1	Strain Clamp, straight Line Deadend Type for Quadruplex Messenger	20-SDMS-02	Fig. 30
07	1	Shoulder Eye Bolt M16x180mmW/2 Nuts, 1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
08	3	Cable Ties	20-SDMS-02	Fig. 63
09	4	Parallel Groove Comp. Connector for 120mm2 Quadruplex Messenger	20-SDMS-02	Fig. 39
10	3	Insulating Cap for Quadruplex Connectors	20-SDMS-02	Fig. 40
11	23M	Stay Wire, 7/3.25, 9.8mm Dia. HDG Steel, UTS 65kN (Min)		
12	1 Set	L.T. Two Stay Assembly	20-SDMS-02	Fig. 301

DRW.138A-OC10, 10M, LOW VOLTAGE, TAP-OFF ON SAME SIDE OF MEDIUM ANGLE STRUCTURE 16°-60°

DRW.139-OC10, 10M, LOW VOLTAGE, TAP-OFF ON HEAVY ANGLE STRUCTURE 61°-90°

ALL DIMENSIONS ARE IN MILLIMETER

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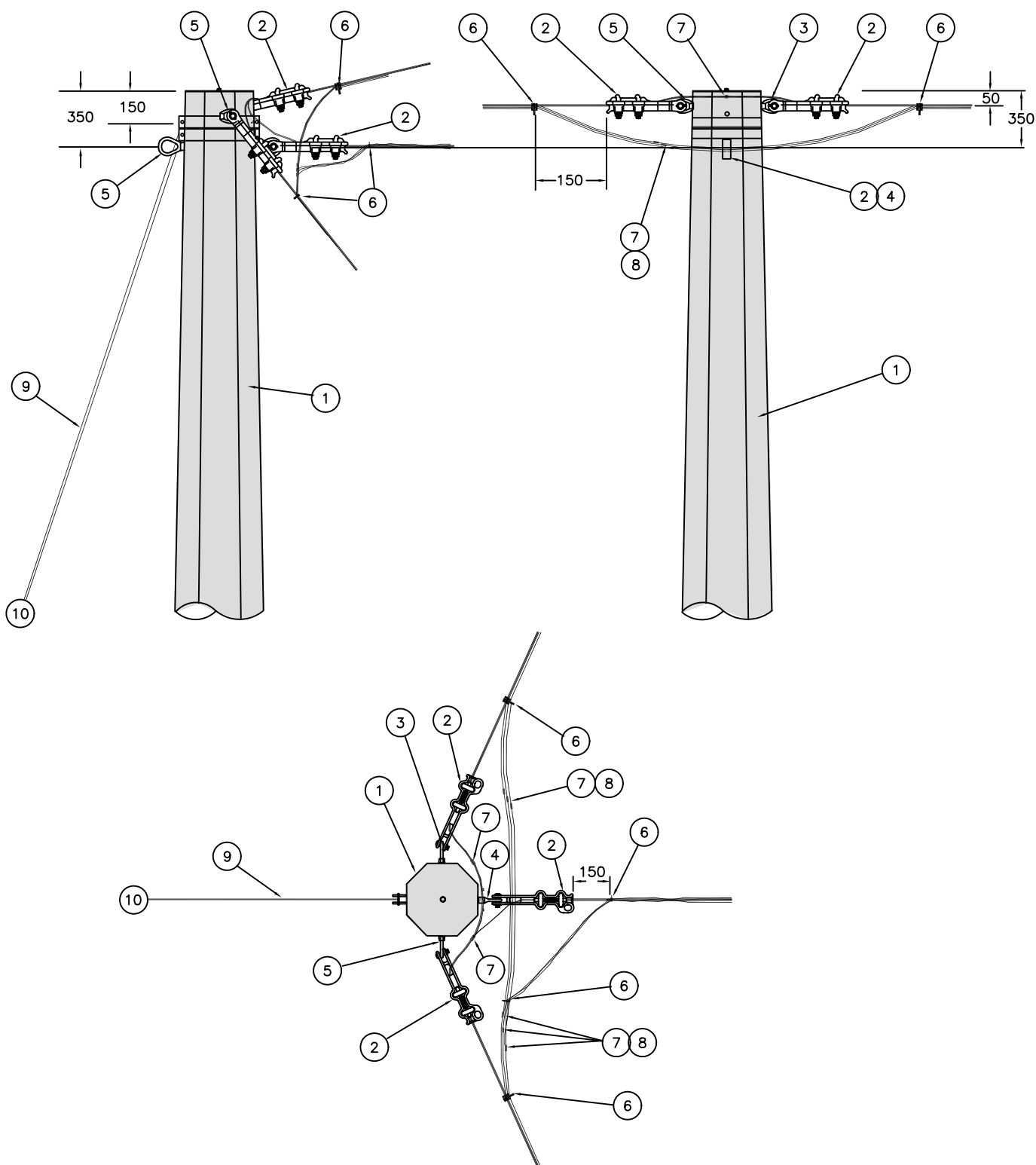
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	3	Strain Clamp, Straight Line Deadend Type for Quadruplex Messenger	20-SDMS-02	Fig. 30
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts,1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
04	1	Shoulder Eye Bolt M16x180mmW/2 Nuts,1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
05	2	Eye Nut M16	20-SDMS-02	Fig. 18
06	3	Cable Tie	20-SDMS-02	Fig. 63
07	8	Parallel Groove Comp. Connector for 120mm2 Quadruplex Messenger	20-SDMS-02	Fig. 39
08	6	Insulating Cap For Quadruplex Connectors	20-SDMS-02	Fig. 40

DRW.139A-OC10, 10M, LOW VOLTAGE, TAP-OFF ON HEAVY ANGLE STRUCTURE 61°-90°

DRW.140-OC10, 10M, LOW VOLTAGE, TAP-OFF ON THE SAME SIDE OF HEAVY ANGLE STRUCTURE 61°-90°

ALL DIMENSIONS ARE IN MILLIMETER

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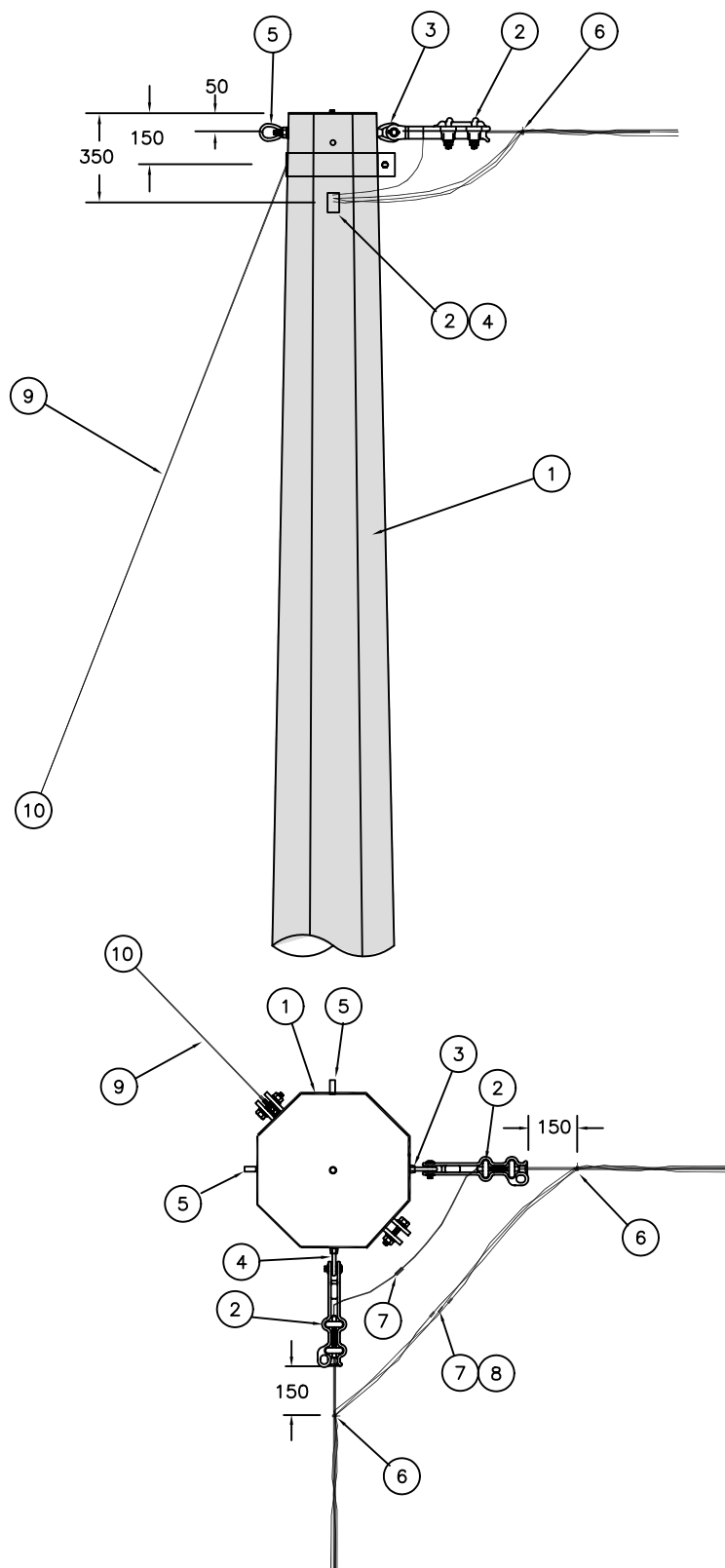
SERIAL NO.	QTY	BILLS OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	3	Strain Clamp, Straight Line Deadend Type for Quadruplex Messenger	20-SDMS-02	Fig. 30
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts,1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
04	1	Shoulder Eye Bolt M16x180mmW/2 Nuts,1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
05	2	Eye Nut M16	20-SDMS-02	Fig. 18
06	3	Cable Tie	20-SDMS-02	Fig. 63
07	8	Parallel Groove Comp. Connector for 120mm2 Quadruplex Messenger	20-SDMS-02	Fig. 39
08	6	Insulating Cap For Quadruplex Connectors	20-SDMS-02	Fig. 40
09	23M	Stay Wire, 7/3.25, 9.8mm Dia. HDG Steel, UTS 65kN (Min)		
10	1 Set	L.V. Two Stay Assembly	20-SDMS-02	

DRW.140A-OC10, 10M, LOW VOLTAGE, TAP-OFF ON SAME SIDE OF THE HEAVY ANGLE STRUCTURE 61°-90°

DRW.141-OC10, 10M, LOW VOLTAGE, TAP-OFF ON TERMINAL STRUCTURE WITH STAYS

ALL DIMENSIONS ARE IN MILLIMETER

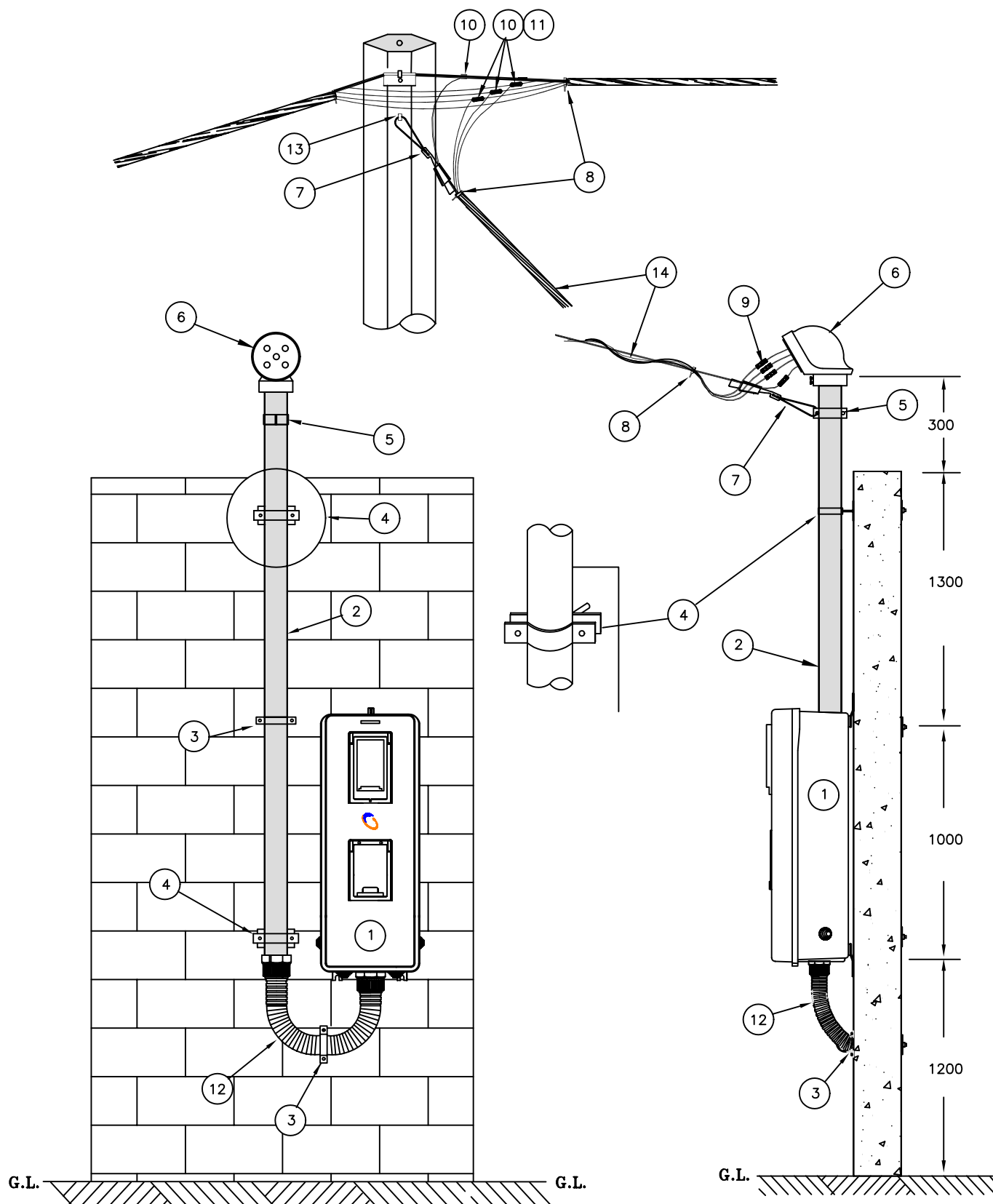
SERIAL NO.	QTY	BILLS OF MATERIALS DESCRIPTION	REFERENCES	
01	1	OC10 – 10 Meter Steel Pole, HDG, Single Circuit	20-SDMS-01	Page 33
02	2	Strain Clamp, Straight Line Deadend Type for Quadruplex Messenger	20-SDMS-02	Fig. 30
03	1	Shoulder Eye Bolt M16x170mmW/2 Nuts,1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
04	1	Shoulder Eye Bolt M16x180mmW/2 Nuts,1 Flat Washer & 1 Spring Washer	20-SDMS-02	Fig. 16
05	2	Eye Nut M16	20-SDMS-02	Fig. 18
06	2	Cable Tie	20-SDMS-02	Fig. 63
07	4	Parallel Groove Comp. Connector for 120mm2 Quadruplex Messenger	20-SDMS-02	Fig. 39
08	3	Insulating Cap For Quadruplex Connectors	20-SDMS-02	Fig. 40
09	23M	Stay Wire, 7/3.25, 9.8mm Dia. HDG Steel, UTS 65kN (Min)		
10	1 Set	L.V. Two Stay Assembly	20-SDMS-02	

DRW.141A-OC10, 10M, LOW VOLTAGE, TAP-OFF ON TERMINAL STRUCTURE WITH STAYS

DRW.142-SERVICE ENTRANCE DROP ON CONSUMERS WALL/BUILDING TYPICAL FROM ALL L.V. STRUCTURES

ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	Fiberglass Reinforced Polyester Meter Box	42-SDMS-01	
02	1	Service Drop G.I. Steel Pipe (70mm O.D.) 2600mm Length	20-SDMS-02	Fig. 59
03	4	Service Mast On Wall Support Clamp	20-SDMS-02	Fig. 61
04	1	Service Mast Clamp for (70mm O.D.) Steel Pipe	20-SDMS-02	Fig. 57
05	1	Service Entrance Head for Mast (70mm O.D.) Steel Pipe	20-SDMS-02	Fig. 58
06	2	Wedge Grip With Removable Bail	20-SDMS-02	Fig. 56
07	2	Cable Ties	20-SDMS-02	Fig. 63
08	4	Insulated Type Sleeve for Connecting Quadruplex Cables	20-SDMS-02	Fig. 34
09	4	Parallel Groove Compression Connector for Quadruplex, 120/120mm2	20-SDMS-01	Fig. 39
10	3	Insulating Cap for Quadruplex Connectors	20-SDMS-01	Fig. 40
11	1	Shoulder Eye Bolt,M16x180mm W/2 Nuts,1 Flat Washer & 1 Spring Washers	20-SDMS-01	Fig. 16
12	1	Flexible Conduit Pipe (70mm O.D.) With Coupling Nuts	20-SDMS-02	Fig. 62
13	25M	Quadruplex PVC, LV 3x120mm2 AL + 1x120mm2 ACSR	11-SDMS-02	
		USING SERVICE MAST ON WALL SUPPORT		

DRW.142A-SERVICE ENTRANCE DROP ON CONSUMER'S WALL/BUILDING
TYPICAL FROM ALL L.V. STRUCTURES

DRW.143-SERVICE ENTRANCE DROP ON CONSUMER'S WALL
TYPICAL FROM ALL L.V. STRUCTURES

ALL DIMENSIONS ARE IN MILLIMETER

SERIAL NO.	QTY	BILL OF MATERIALS DESCRIPTION	REFERENCES	
01	1	Fiberglass Reinforced Polyester Meter Box	42-SDMS-01	
02	1	Service Drop G.I. Steel Pipe (70mm O.D.) 2600mm Length	20-SDMS-02	Fig. 59
03	2	Service Mast On The Wall Support Clamp	20-SDMS-02	Fig. 60
04	2	Service Mast Through Wall Support Clamp	20-SDMS-02	Fig. 61
05	1	Service Mast Clamp for (70mm O.D.) Steel Pipe	20-SDMS-02	Fig. 57
06	1	Service Entrance Head for Mast (70mm O.D.) Steel Pipe	20-SDMS-02	Fig. 58
07	2	Wedge Grip With Removable Bail	20-SDMS-02	Fig. 56
08	2	Cable Ties	20-SDMS-02	Fig. 63
09	4	Insulated Type Sleeve for Connecting Quadruplex Cables	20-SDMS-02	Fig. 34
10	4	Parallel Groove Compression Connector for Quadruplex, 120/120mm2	20-SDMS-01	Fig. 39
11	3	Insulating Cap for Quadruplex Connectors	20-SDMS-01	Fig. 40
12	1	Flexible Conduit Pipe (70mm O.D.) With Coupling Nuts	20-SDMS-02	Fig. 62
13	1	Shoulder Eye Bolt, M16x180mm2 W/2Nuts & 2 Flat Washers	20-SDMS-02	Fig. 16
14	25M	Quadruplex PVC, LV 3x120mm2 AL + 1x120mm2 ACSR	11-SDMS-02	
		USING SERVICE MAST THROUGH WALL SUPPORT CLAMP		

DRW.143A-SERVICE ENTRANCE DROP ON CONSUMER'S WALL TYPICAL FROM ALL L.V. STRUCTURES